

**REMARKS**

The enclosed is responsive to the Examiner's Office Action mailed on June 24, 2009. At the time the Examiner mailed the Office Action claims 1-13 were pending. By way of the present response the Applicants have:

1) amended claims 1, 8 and 11;

2) canceled no claims;

3) added new claim 14. Support for the newly added claim is found in the Specification and, hence, no new matter has been added.

4) argued the patentability of the independent claims 1, 8 and 11.

As such, claims 1-14 are now pending. The Applicants respectfully request reconsideration of the present application and the allowance of all claims now presented in view of the amendments and following arguments and remarks.

***Claim Rejections***

**Rejections under 35 U.S.C. §102:**

Claims 1-5 and 7-13 were rejected under 102(e) as being anticipated by Van Rietschote et al. (U.S. Patent No. 7,203,944) (hereinafter "Rietschote"). Applicant respectfully traverses this rejection.

Rietschote does not teach assigning of a virtual machine to the corresponding virtual layer by taking into account one or more characteristics of the application associated with the virtual layer and one or more of attached parameters associated with the physical machines. The assigning of the virtual machine enables optimizing allocation of physical machines based not only on resource availability but also on one or more attached parameters of the physical machine. In Rietschote, a first virtual machine is migrated to a second available virtual machine to balance the load. However, the migration of the virtual machines might not be optimal as the operating cost, storage costs, storage means, transfer efficiency or CPU time as well as security

level are not addressed and may be compromised during load balancing.

In contrast, the claimed invention addresses the various aspects of physical machines and application during assigning of virtual machine to virtual layer associated with the physical machines so as to enable resource optimization. Thus, the claimed invention teaches a method wherein the one or more characteristics of the application and the one or more attached parameters of the physical machines are considered in identifying and assigning the appropriate virtual machine to the virtual layer of the physical machine. This could mean that the virtual machines are assigned through virtual layer to physical machines that are not only connected locally but also that are physically installed on other sites. This enables for more optimal assignment of virtual machine that addresses all aspects of the virtual environment. (See page 11, paragraphs 0041-0045).

As can be seen from the above arguments, Rietschote does not suggest or teach each and every element of the claimed invention. Applicants, therefore, submit that the claimed invention is novel over Rietschote and request the withdrawal of the 102 rejection of independent claims 1, 8 and 11. Claims 2-5, 7, 9-10 and 12-14 are dependent on the independent claims 1, 8 and 11 respectively and include all the limitations of the amended independent claims 1, 8 and 11. Based on the arguments presented for independent claims 1, 8 and 11, Applicants submit that claims 2-5, 7, 9-10, and 12-14 are patentably distinct to the extent independent claim is distinct and request the withdrawal of the 102 rejection of the dependent claims 2-5, 7, 9-10 and 12-14.

**Rejections under 35 U.S.C. §103:**

Claim 6 was rejected under 103(a) as being unpatentable over Rietschote in view of Adamovits et al (U. S. Patent No. 6,698,017) (hereinafter “Adamovits”). Applicants respectfully traverse this rejection.

Claim 6 is dependent on the amended independent claim 1 and includes all the limitations of the independent claim 1. Adamovits teaches a method for migrating control over a processing element (processor) from an original software system to a replacement software system using a virtual machine. The virtual machine is activated during the migration and deactivated after the migration is completed. However, Adamovits does not cure the deficiency of Rietschote which includes assigning the virtual machine to the appropriate physical machine through the virtual layer based on characteristics of the application and the attached parameters of the physical machine. In fact, Adamovits suggests or teaches creating a virtual machine within a memory of the physical machine that is tied to physical structure of the physical machine. Combining Adamovits with Rietschote would still not suggest or teach providing a virtual layer at each of the physical machines and assigning at least a virtual machine to the virtual layer at each physical machine based on the one or more attached parameters of the physical machines and one or more characteristics of the application wherein the virtual layer includes at least one application that can be executed by the virtual machine and wherein the virtual machine is independent of the physical machine. The virtual machine assignment ensures optimal assignment of the virtual machine to the virtual layer based on physical machine resources and application characteristics.

Based on the above arguments, Applicants submit that the claimed invention is novel over the cited arts and request the withdrawal of the 103 rejection of claim 6.

Applicants have additionally added new dependent claim 14 that includes the feature of assigning virtual machine to a virtual layer of a physical machine that is either located locally or remotely. According to the claimed invention, the locality of the physical machine is not important. The optimal assignment of virtual machine to address application characteristics and to avail optimal physical machine resources is important. The claimed invention includes an optimization tool to address this feature in order to provide optimal matching of available resources to application requirements.

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Accordingly, Applicants respectfully submit that the present Application is in condition for allowance. Applicants therefore respectfully request reconsideration of the outstanding rejections and a Notice of Allowance. If there are any additional charges, please charge Deposit Account No. 50-2652 (Order No. A279). The Examiner is invited to contact the undersigned at 650-427-3096 to discuss any additional changes the Examiner may feel is necessary in light of this Amendment.

Date: August 20, 2009

Respectfully submitted,  
for VMware, Inc.

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